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II. *A Letter to Martin Folkes Esq. LL. D. Pr. R. S. containing some Observations upon certain Shell-Fish (lodg'd in a large Stone brought from Mahon Harbour by Mr. Samuel More, Purser of the Sterling-Castle Man of War) from James Parsons M. D. F. R. S.*

Read Jan. 21. 1747. **T**HE Favour Mr. *More* and Mr. *Graham* have done the *Royal Society*, by their Present of the Stone containing the shell'd Fish, and called the *Dottle-Stone*, has given Occasion to the following Hints, to shew of what sort these Fish are, and that they are rare and curious to us.

Upon our first hearing of them by Mr. *More's* Letter to *Richard Graham* Esq; because it was said the Fish were lodged in a Stone, it was thought they were the same we know by the Name of *Pholades*, and of which there are Plenty upon our own Coasts; but I believe none of us had seen these before, nor had a Notion of any others being lodged in Stone but our *Pholades* above mention'd; whereas these seem to be peculiar to the Mediterranean Sea, since *Rondeletius*, and after him *Aldrovandus*, have given their Account and Figures of them, among others that are Inhabitants of the same Regions.

These two Authors call them simply *Pholades*, which Term is derived of the Greek Verb φαλέω, and signifies, to have a hiding Place; every Animal therefore

therefore that absconds in Earth or Stones might be called so too: Hence I think, that *φῶλλος* is too vague and insignificant a Name for any particular Animal, and that some other, which has a nearer Relation to its generical Character ought to be given to it.

If *Aldrovandus* had seen those, which we as erroneously call *Pholades*, inclosed in their Cells, he would, no doubt, have call'd them by the same Name, and for the same Reason; but I am inclined to think he never saw the intire Fish, but only the Shell; because he gives a very imperfect Description of it, among several others which he has Figures of also, and which he calls *Conchæ longæ Authoris aliæ*, which follow an Account and Figure of the *Concha longa* of *Pliny*.

Dr. *Lister* and *Rumphius* also have Figures of this Mediterranean Fish, and, after that Author, call it *Pholas*: But since this Term barely denotes the Place of its Residence, let us endeavour to give it a proper Name, which may be done by considering its Similarity with some *Genus* already known.

The above-mention'd Gentleman says, the Stones are from half a hundred to four or five hundred weight each, lying at all Depths to twenty Feet under Water; full of Cells, each containing a single Fish, call'd by the Inhabitants the *Dottle* Fish; which Name he judiciously supposes to be a Corruption of the Word *Dactylus* from their Form. He also says, the Fish is of the same Nature with the common Muscle, but much more delicious, and that eating them is never attended, with those poisonous Symptoms, that have been often thought to be caus'd by eating Muscles.

The Shells are indeed, in all Respects but one, like the *Mytulus vulgaris*, or *common Muscle*; these being small at the Hinge-End, and having a broad thin Edge at the Opposite; whereas the former are nearly equal at both Ends, as well as strait and somewhat depressed; and as to the Structure of the Fish of both, they are alike, tho' with this small Difference, that the *Lingula* of the common Muscle is detached towards the Point, and that of the other is confin'd all along. I therefore submit it, whether either of the following Names would not properly express it,

Mytulus cylindroides, the cylindroid Muscle, or *Mytulus Dactyliformis*, the *Date Muscle*. Its external Form conducing much to encourage the latter, which Mr. More has hinted at, in calling the Stone the *Dottle*, *Dotting*, or *Dating-Stone*; for as to the Place of its Residence, that belongs rather to its general natural History than its distinguishing Name.

Doctor *Lister*, and after him Monsieur *D'Argenville* have drawn our *Pholas* with five Shells; but we have some Reason to suspect they are only Bivalves; for, upon examining those inclosed in the *Specimen* before you, in Company with Mr. *Hill*, none of them appeared to have any more than two Shells. And in a Specimen (given to Mr. *Peter Collinson* by Sir *Charles Wager*) of one of these Fish, which lodg'd itself in the Bottom of a Ship, there were but two Shells found; which Shell together with the Piece of Wood, wherein it was lodged, I myself saw along with several other Friends in the above-mention'd Gentleman's Collection. Now these ought, in like manner, after its generical Character,

Character, to be ranged among the *Chama*; and as they have a *Proboscis* which none of the *Mytuli* have, I would also offer the following Name for this Fish;

Chama longa rugis asperis, alba. The long rough white *Chama*.

Mr. *Baker* has shewn me another Species of *Pholas*, which he lately took out of a Stone from the Coast of *Cornwal*, and which has more of the *Pectuncle* than any other kind, in its Form, *Cardo*, and shutting close; which the Shells just mention'd cannot do: Now these three distinct Kinds of Shell-Fish can never be said to be rightly called by the single Name of *Pholas*.

The common Objection to these Fish boring their Way into the Stones in which they are found, *viz.* that the Stones are first in a soft State, and so harden about them, may be obviated by the following Considerations: First, that in Mr. *More's* great Stone, when it was broken, there appear'd thro' its Substance several petrify'd fossil Shells; which clearly shew that its Formation was of an ancienter Date than the Age of these Muscles can admit of. Secondly, That the Holes on the Surface are narrower, in general, than the Cavity in which the Fish lies; and which demonstrates, that they enter young, and are capable of enlarging their Room as they grow bigger, by abrading the Sides of their Cells: And this is further apparent, by the sandy Matter found in the Bottoms of those Cells, which the Fish cannot well get rid of, when it happens, that the Orifice is higher than the Bottom; Abundance of which

Mr.

Mr. *Hill* and myself observed in some of the Holes; and which is easily thrown quite out, when the Orifice is depending; for in these we observed none: And this is further confirmed by what Dr. *Woodward* relates in the first Volume of his Catalogue*, that certain Pillars of white *Carrara* Marble taken out of the Sea, on the Coast of *Leghorn*, after lying there a Number of Years, were destroy'd by the boring of these *Pholades*.

As to the Manner of their penetrating the Stones, I cannot give the least Account of it; who am,

S I R,

Your most obedient Servant,

James Parfons.

* Page 25.